Message

From: Johnson, Barnes [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C39E9338CBF04DC3B4B29F78E5213303-JOHNSON, BARNES]
Sent: 5/2/2018 1:09:10 PM
To: 'Roewer, James' [JRoewer@eei.org]; 'Fawal, Margaret K.' [MKFawal@Venable.com]; 'Doug Green' [dhgreen@venable.com]
CC: Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]; 'HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com)' [HAROLD.REGISTERJR@cmsenergy.com]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Devlin, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b76a4bf5afc84459a6bf2a6a4645f40f-BDEVLIN]; Elliott, Ross [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33cb08013cc94c21a3e3236dbad4c4a4-REELLIOT]; Michaud, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b492b9143fb48f2b4e1ad2b35d49def-Michaud, John]; Lewis, Jen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ecd7b39ba6f14334bc308b9a3bc2ae5f-JLUE]; Celeste, Laurel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8f5194a050ce4b758e02e6835fe0b43d-Celeste, Laurel]; ORCR IO [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=feb18e156b3547d1881d93c5893396f8-ORCR IO]; Cook, Steven [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=394f5dede6184bc083cf9390e49a192c-Cook, Steve]; Breen, Barry [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b44bce1a71e4a95acaf82f2fbc858b0-BBREEN]; Yonce, Stacey [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=42a6b9c4ba0e41fcb195d56c4e14ff11-SYonce]
Subject: CCR Rule Groundwater Monitoring Timing
Attachments: Groundwater Monitoring Response Letter to USWAG 4_30_18.pdf

Dear Jim, Doug and Margaret,

Enclosed, please find our second and final reply to your letter that posed questions regarding groundwater monitoring for coal combustion residuals. As always please feel free to reach out if you wish to discuss this further.

Sincerely,

Barnes Johnson
USEPA | Resource Conservation and Recovery | Tel 703-308-8895 | johnson.barnes@epa.gov | @EPAland

From: Roewer, James [mailto:JRoewer@eei.org]
Sent: Monday, November 27, 2017 8:06 AM
To: Fatouhi.david@epa.gov; Brown, Byron <brown.byron@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>
Cc: Doug Green <dhgreen@venable.com>; Fawal, Margaret K. <MKFawal@Venable.com>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>
Subject: Confirmation of CCR Rule Groundwater Monitoring

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

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OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE
NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

APR 30 2018

James Roewer
c/o Edison Electric Institute
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

Douglas Green
Margaret Fawal
Venable LLP
600 Massachusetts Avenue, N.W.
Washington, D.C. 20001

Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements

Dear Ms. Fawal, Mr. Green, and Mr. Roewer:

My office has been asked to respond to the letter from the Utility Solid Waste Activities Group (USWAG), dated November 27, 2017, to the U.S. Environmental Protection Agency (EPA), requesting confirmation with regard to your reading of the timing for two specific requirements in the Coal Combustion Residuals (CCR) Rule's groundwater monitoring provisions: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under 40 C.F.R. § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. On January 26, 2018, we provided an initial response that addressed the first issue raised in your letter. This letter responds to the remainder of that November 27 letter.

USWAG requested confirmation of its reading of the time frame for completing a statistical evaluation of the groundwater data collected during assessment monitoring in order to determine whether there is an exceedance of the groundwater protection standard. Your letter suggests that January 10, 2019, is the date by which facilities must make their initial determination of whether there has been the detection of a statistically significant increase of an Appendix IV constituent above the relevant groundwater protection standard in the downgradient wells (assuming the facility has elected to take 90 days pursuant to § 257.94(e)(2) to demonstrate that detection of the Appendix III constituent(s) was attributable to sampling error or some other source).

As explained below, EPA calculates January 14, 2019,[1] as the deadline for facilities[2] to make their initial determination of whether there has been the detection of a statistically significant increase of an Appendix IV constituent above the relevant groundwater protection standard in the downgradient wells (assuming the facility has elected to take advantage of the 90 day option in § 257.94(e)(2)).

Section 257.95 generally establishes the schedule and framework for conducting the sampling and analysis required for assessment monitoring, but does not include a specific timeframe for completing the statistical evaluation of these data to determine whether there is an exceedance of the groundwater protection standard. The timeframe for that requirement instead appears in 40 C.F.R. § 257.93(h), which EPA reads to apply to the statistical analyses required under both detection and assessment monitoring. Taken together, these sections establish that the first deadline for completing the statistical evaluation of the assessment monitoring data to determine whether there is an exceedance of the groundwater protection standard is 90 days after completion of the re-sampling and analysis in § 257.95(d)(l).

Section 257.95(b) provides that within 90 days of triggering assessment monitoring (and on an annual basis thereafter) the owner/operator must sample and analyze for all Appendix IV constituents. For any Appendix IV constituents detected in the sampling and analysis required under subsection (b) the owner/operator must: (1) identify ("establish") the relevant groundwater protection standards specified in § 257.95(h); (2) continue assessment monitoring by resampling for all Appendix III and the relevant (detected) Appendix IV constituents and (3) obtain analytical results of those combined samples within 90 days. 40 C.F.R. § 257.95(d)(1)-(2).

Section 257.93(h) states that an owner or operator "must determine whether there is a statistically significant increase over background values for each constituent required in the particular groundwater monitoring program that applies to the CCR unit, as determined under § 257.94(a) or § 257.95(a)." 40 C.F.R. § 257.93(h). Section (h)(2) in turn specifies that "within 90 days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background for any constituent at each monitoring well." The determination of whether there has been a statistically significant increase over background is a necessary prerequisite to determining whether there is an exceedance of the groundwater protection standard. A determination that there has been a statistically significant increase over background indicates that there is a release from the unit and requires that the release be evaluated further to determine if it also exceeds the ground water protection standard. See 40 C.F.R. § 257.95(f).

Thus, 90 days after completing the resampling for the relevant (detected) Appendix IV constituents pursuant to § 257.95(d)(1), an owner or operator must conduct a statistical analysis in accordance with § 257.93(h).[3] For example, assuming that the facility did not take advantage of the 90 day option in § 257.94(e)(2), the first round of Assessment monitoring would have been completed on April 16, 2018. In this case, consistent with § 257.93(h), the facility would need to complete the

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[1] In calculating this date, EPA extended any deadlines that fell on a weekend or Federal holiday to the next business day.

[2] This excludes those inactive surface impoundments whose deadlines were extended by 81 Fed. Reg. 51,803 (Aug. 5, 2016).

[3] Note that conducting the statistical analysis on 2 sets of sampling occurs only on this first round (the "initial…sampling events" referenced in § 257.95(d)(1)) of Assessment monitoring. All other statistical analyses on subsequent rounds of on-going semi-annual or annual sampling under assessment monitoring must be conducted following the single set of samples obtained during that sampling event.

statistical analyses on the two rounds of sampling to determine whether there is a statistically significant increase over the groundwater protection standard no later than October 15, 2018.

EPA's discussion of section 257.93(h)(2) in the final rule preamble supports this reading. As EPA explained, "[s]everal commenters suggested that *once sampling and analysis had been completed,* 90 days would be a reasonable amount of time to complete the statistical analysis to determine whether an exceedance had occurred. No commenter suggested a longer period of time was necessary and that timeframe is consistent with the Agency's experience of the timeframes necessary to complete such analyses. Accordingly, *we have revised the provision to require the determination of a statistically significant increase to be made within 90 days of sampling and analysis.*" 80 Fed. Reg. at 21,404 (emphases added).

If you have any additional questions regarding this letter, please contact me at (703) 308-8895 or at johnson.barnes@epa.gov.

Sincerely,

Barnes Johnson

Barnes Johnson, Director
Office of Resource Conservation and Recovery

Message

From: Roewer, James [JRoewer@eei.org]
Sent: 11/27/2017 1:19:22 PM
To: Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]; Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]
CC: Doug Green [dhgreen@venable.com]; Fawal, Margaret K. [MKFawal@Venable.com]; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) [HAROLD.REGISTERJR@cmsenergy.com]
Subject: FW: Confirmation of CCR Rule Groundwater Monitoring
Attachments: CCRRuleGWMonitoring11272017.pdf

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

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OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

JAN 2 6 2018

Mr. James Roewer
c/o Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, D.C. 20004

Mr. Douglas Green
Ms. Margaret Fawal
Venable LLP
600 Massachusetts Avenue, NW
Washington, D.C. 20001

Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements

Dear Ms. Fawal, Mr. Green, and Mr. Roewer:

My office has been asked to respond to the letter from the Utility Solid Waste Activities Group (USWAG), dated November 27, 2017, to the U.S. Environmental Protection Agency (EPA), requesting confirmation with regard to your interpretation of the timing for two specific requirements in the Coal Combustion Residuals (CCR) Rule's groundwater monitoring provisions: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under 40 C.F.R. § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. This responds in part to that November 27 letter.

1. Alternate Source Demonstration in Detection Monitoring

EPA agrees with your interpretation that the 90-day time period for conducting an alternate source demonstration in 40 C.F.R. § 257.94(e)(2) is separate from, and does not run concurrently with, the 90-day time frame in § 257.94(e)(l) or § 257.95(b).

40 C.F.R § 257.94(e)(1) expressly provides that paragraph (e)(2) serves as an exception to the requirement that an owner or operator establish an assessment monitoring program within 90 days of detecting a statistically significant increase over background levels for any Appendix III constituent. ("Except as provided for in paragraph (e)(2) of this section, ..."). Paragraph (e)(2) in turn provides that instead of initiating an assessment monitoring program within 90 days of such detection, the owner or operator may attempt to "demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase

resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality." The regulation further provides that, "[i]f a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section." If, at the end of that 90-day timeframe, the owner/operator is not able to successfully make this demonstration, the rule requires the owner/operator to "initiate an assessment monitoring program as required under § 257.95."

Consistent with these provisions, EPA interprets 40 C.F.R. § 257.95(b) such that an assessment monitoring program is "triggered" either: (1) on the date an SSI is detected in a round of sampling taken under § 257.94(b) if an owner/operator elects not to make an alternate source demonstration under § 257.94(e)(2); or (2) at the end of the 90-day period in § 257.94(e)(2) if an owner/operator tries but cannot successfully make an alternate source demonstration under § 257.94(e)(2).

Note that this interpretation of the regulations mirrors the discussion of these provisions in the preamble to the final rule. As EPA explained,

> The owner or operator has the opportunity to demonstrate that a source other than the CCR unit caused the statistically significant increase or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation or a natural variation in groundwater quality. Within 90 days, the owner or operator must prepare a report documenting this demonstration which must then be certified by a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is made within 90 days, the owner or operator may continue detection monitoring. If a successful demonstration is not made within 90 days, the owner or operator must initiate assessment monitoring.
>
> Commenters raised concern that 90 days would not be sufficient to complete all of the activities necessary to determine whether the detection of an SSI was from another source than the CCR unit or was based on inaccurate results. The Agency recognizes that in some circumstances it could take more than 90 days to resample and have laboratories conduct new analyses, or to conduct field investigations to determine that another source is causing the contamination. As a result, § 257.94(e)(3) does not place an ultimate time limit for owners and operators to complete the demonstration. However, if after 90 days the owner or operator has not made a successful demonstration, (s)he must begin an assessment monitoring program.

80 Fed. Reg. 21,302, 21,404 (Apr. 17, 2015). *See also id.* at 21406 (contrasting the 90-day time period for making an alternate source demonstration pursuant to § 257.95(g)(3)(ii)).

2. Statistical Evaluation of Assessment Monitoring Data

USWAG also requested that EPA confirm your interpretation of the time frame for completing a statistical evaluation of the groundwater data collected during assessment monitoring in order to determine whether there is an exceedance of the groundwater protection standard. In your view, the regulations do not specify a specific timeframe for completing the statistical evaluation of these data. In support of this interpretation, you note that under § 257.95(b), the owner/operator must sample and analyze the groundwater for all appendix IV constituents within 90 days of triggering an assessment monitoring program; and that under § 257.95(d)(1), within 90 days of obtaining the results under § 257.95(b), the owner/operator must resample and analyze the groundwater for all appendix III constituents and those appendix IV constituents detected in § 257.95(b). The regulations then require the owner/operator to initiate an assessment of corrective measures within 90 days of detecting an appendix IV constituent at a

statistically significant level above the groundwater protection standard (40 C.F.R. § 257.95(g)(3)). On this basis, USWAG interprets the regulation to provide, at a minimum, that owners/operators have 90 days to conduct the statistical evaluation following completion of the sampling and analysis in § 257.95(d)(l).

EPA is still considering the issues you have raised regarding these provisions of the CCR Rule, and is therefore not in a position to provide a response at this time. I understand the need to provide timely guidance to facilities and will communicate EPA's views as soon as is feasible.

In the interim, if you have questions regarding this letter, please contact me at (703) 308-8895 or Frank Behan at (703) 308-8476.

Sincerely,

Barnes Johnson, Director
Office of Resource Conservation and Recovery

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November 27, 2017

Via Email

David Fatouhi
Deputy General Counsel
Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code: 2310A
Washington, DC 20460
fatouhi.david@epa.gov

Mr. Fatouhi,

I am writing on behalf of the Utility Solid Waste Activities Group (USWAG) regarding implementation of the groundwater monitoring program in the Environmental Protection Agency's coal combustion residuals (CCR) rule (40 CFR Part 257, Subpart D). Specifically, I am seeking confirmation regarding the timing of certain requirements that must be taken under the CCR rule's groundwater monitoring provisions. USWAG members, and the industry in general, are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

The CCR rule's groundwater monitoring program utilizes a phased approach, which provides for a graduated response over time to groundwater contamination as the evidence of such contamination increases. Owners and operators of CCR units were required to initiate the first phase of the groundwater program, detection monitoring (40 C.F.R. § 257.94), by October 17, 2017. Depending on the results of the groundwater sampling and analysis and statistical evaluation in detection monitoring, the next phase of the groundwater program, assessment monitoring, could be triggered as soon as January 15, 2018.[1] Because of the significant implications of assessment monitoring (*e.g.*, corrective action and/or forced closure

[1] Under § 257.93(h)(2), owners/operators have 90 days from sampling and analysis to run the statistical evaluation in detection monitoring. Because § 257.90(b)(1)(iv) requires an owner/operator to begin evaluating the data by October 17, 2017, the rule contemplates that the statistical evaluation will be completed by January 15, 2018.

of unlined surface impoundments), it is critical that EPA provide confirmation on the timing of each groundwater monitoring phase so that owners and operators can appropriately implement the rule's requirements going forward.

USWAG seeks confirmation with regard to its interpretation of the timing for two specific requirements in the CCR rule's groundwater monitoring program: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. USWAG's interpretation of the timing for each of these specific requirements, and the basis for that interpretation, is provided below. In addition, to help illustrate USWAG's interpretation, I have attached a diagram and two charts, outlining the timeframes in the rule's groundwater monitoring program.

1. Alternate Source Demonstration in Detection Monitoring

Under § 257.94(e)(1), if an owner/operator detects a statistically significant increase (SSI) above background levels for an appendix III constituent during detection monitoring, the owner/operator must within 90 days of detecting the SSI proceed to establish a groundwater assessment monitoring program meeting the requirements of § 257.95. However, § 257.94(e)(2) allows the owner/operator 90 days to demonstrate that the SSI was caused by a source other than the CCR unit or resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality (referred to here as an "alternate source demonstration"). If, at the end of that 90-day timeframe, the owner/operator is not able to successfully make this demonstration, the rule requires the owner/operator to "initiate an assessment monitoring program as required under § 257.95."

Under § 257.95(b), an owner/operator must within 90 days of "triggering" an assessment monitoring program, sample and analyze the groundwater for all appendix IV constituents. USWAG interprets the term "triggering" as occurring either: (1) if an owner/operator elects not to make an alternate source demonstration under § 257.94(e)(2), on the date an SSI is detected in a round of sampling taken under § 257.94(b); or (2) if an owner/operator tries but is unable to successfully make an alternate source demonstration under § 257.94(e)(2), at the end of the 90-day period in § 257.94(e)(2). In other words, the 90-day time period for conducting an alternate source demonstration in § 257.94(e)(2) is separate from, and does not run concurrently with, the 90-day time frame in § 257.94(e)(1) or § 257.95(b).[2]

[2] USWAG notes that this is in contrast to the 90-day time period for making an alternate source demonstration when an assessment of corrective measures is triggered in the assessment monitoring program (§ 257.95(g)(3)(ii)). EPA makes clear in the preamble to the rule, that—unlike the alternate

We would appreciate your confirmation that our understanding of the timing in § 257.94(e)(2) is correct.

2. Statistical Evaluation of Assessment Monitoring Data

Throughout the groundwater monitoring requirements, EPA distinguishes between the sampling and analysis of groundwater and the statistical evaluation of the data obtained through sampling and analysis. For example, under the detection monitoring program, the rule allows 90 days to complete the statistical evaluation after sampling and analysis is complete. *See* 40 C.F.R. § 257.93(h)(2). EPA explains in the preamble that it agreed with commenters that "90 days would be a reasonable amount of time to complete the statistical analysis to determine whether an exceedance had occurred." 80 Fed. Reg. at 21403. *See also* 257.94(e)(2) (allowing the owner/operator to demonstrate that an SSI resulting from an error in *sampling*, *analysis*, [or] *statistical evaluation* . . .") (emphasis added).

In assessment monitoring, however, the rule does not specify a specific timeframe for completing the statistical evaluation of the data. Instead, under § 257.95(b), the owner/operator must *sample and analyze* the groundwater for all appendix IV constituents within 90 days of triggering an assessment monitoring program; and under § 257.95(d)(1), within 90 days of obtaining the results under § 257.95(b), the owner/operator must *resample and analyze* the groundwater for all appendix III constituents and those appendix IV constituents detected in § 257.95(b). The rule then jumps ahead, requiring the owner/operator to initiate an assessment of corrective measures within 90 days of detecting an appendix IV constituent at a statistically significant level above the groundwater protection standard (§ 257.95(g)(3)). Again, however, the rule does not specify a deadline for conducting the statistical evaluation for determining whether there is an exceedance of the groundwater protection standard.

USWAG believes that, at a minimum, owners/operators have 90 days to conduct the statistical evaluation following completion of the sampling and analysis in § 257.95(d)(1). This timeframe would be consistent with the 90-day time period provided for detection monitoring in § 257.93(h)(2), and with EPA's explanation and reasoning in the preamble.

We would appreciation your confirmation that this interpretation of the timing for assessment monitoring is correct.

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source demonstration timing in detection monitoring—the time period in § 257.95(g)(3)(ii) runs concurrently with the 90-day time period in § 257.96(a) for initiating an assessment of corrective measures. 80 Fed. Reg. 21302, 21406 (Apr. 17, 2015).

* * * *

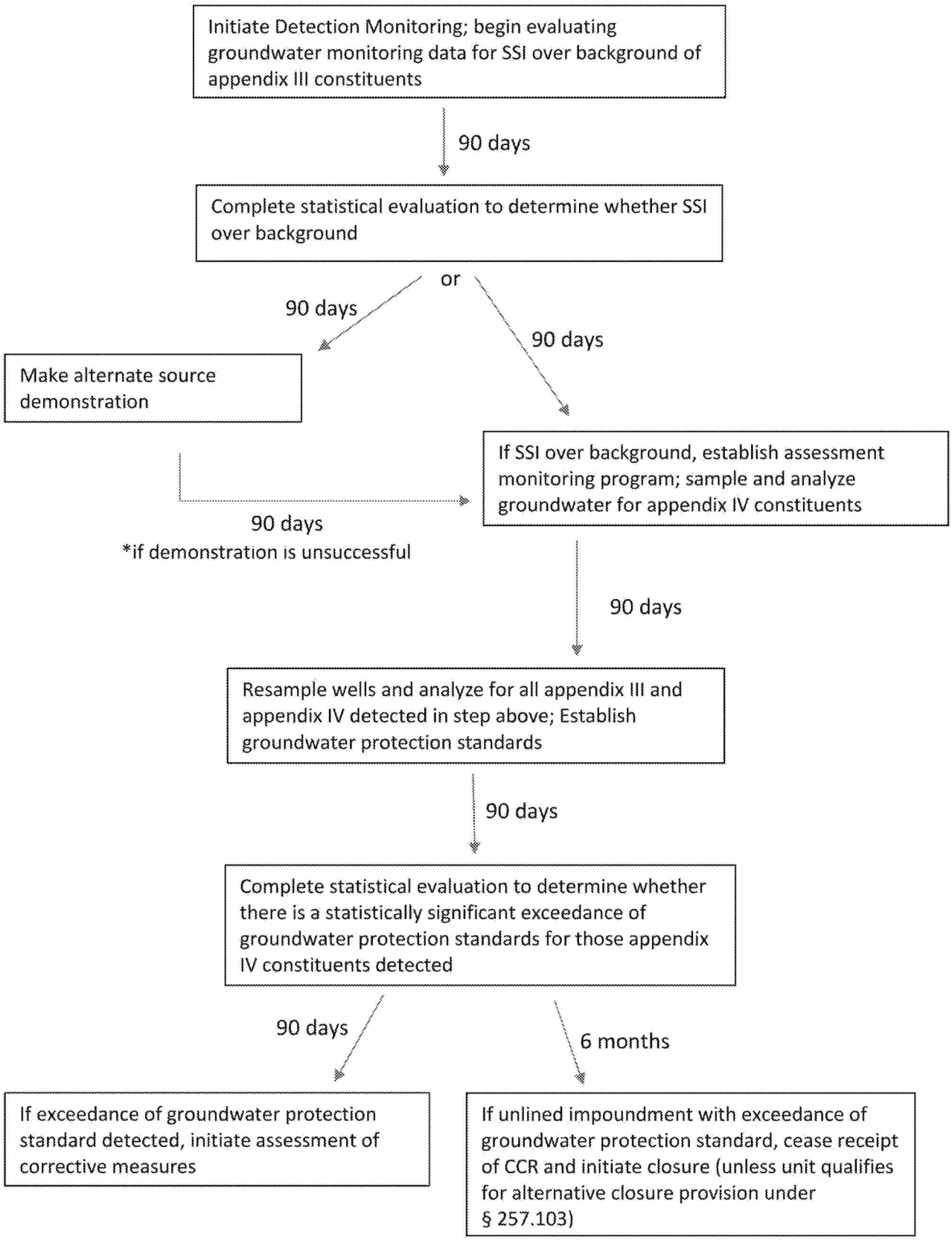
Thank you in advance for your prompt attention to this matter. If you have any questions regarding the issues raised in this letter, please contact me at jim.roewer@uswag.org or (202) 508-5645.

Sincerely,

James Roewer
USWAG Executive Director

cc: Byron Brown
Barnes Johnson

Groundwater Monitoring Flow Chart



Timeline for Facilities That Elect to Make an Alternate Source Demonstration Under § 257.94(e)(2)			
Triggering Event	Action Required due to Triggering Event	Time Frame to Complete Action*	Regulatory Citation
Deadline for groundwater monitoring program	Install groundwater monitoring system, develop program, initiate detection monitoring and begin evaluating for statistically significant increase (SSI) over background.	October 17, 2017	§ 257.90(b) § 257.94(b)
Initiation of groundwater monitoring program	Complete statistical evaluation to determine if there is an SSI over background for Appendix III constituents.	90 days (January 15, 2018)	§ 257.93(h)(2)
SSI in detection monitoring	Demonstrate SSI was result of error or other source ("alternate source demonstration").	90 days (April 15, 2018)	§ 257.94(e)(2)
Failure to demonstrate SSI was result of error or other source under § 257.94(e)(2)	Establish assessment monitoring program; sample and analyze groundwater for appendix IV constituents.	90 days (July 14, 2018)	§ 257.95(b)
Results obtained from samples taken under § 257.95(b)	Resample all wells and conduct analyses for all Appendix III constituents and those Appendix IV constituents detected in the step above.	90 days (October 12, 2018)	§ 257.95(d)(1)
Results obtained from samples taken under § 257.95(d)(1)	Complete statistical evaluation to determine whether there is an exceedance of groundwater protection standards for appendix IV constituents detected.	90 days (January 10, 2019)	Unspecified; assume 90 days
Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Initiate assessment of corrective measures or demonstrate that exceedance of GPS was error or caused by other source.	90 days (April 10, 2019)	§ 257.95(g)(3)
For unlined CCR impoundments, an Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Cease receipt of CCR and initiate closure of impoundment (unless the unit qualifies for the rule's alternative closure provision under § 257.103).	6 months (July 10, 2019)	§ 257.95(g)(5); § 257.101(a)(1)

*Specific dates provided assume that there is an SSI over background in the first round of detection monitoring and an exceedance of a groundwater protection standard in the first round of assessment monitoring.

Timeline for Facilities That DO NOT Elect to Make an Alternate Source Demonstration Under § 257.94(e)(2)			
Triggering Event	Action Required due to Triggering Event	Time Frame to Complete Action*	Regulatory Citation
Deadline for groundwater monitoring program	Install groundwater monitoring system, develop program, initiate detection monitoring and begin evaluating for statistically significant increase (SSI) over background.	October 17, 2017	§ 257.90(b) § 257.94(b)
Initiation of groundwater monitoring program	Complete statistical evaluation to determine if there is SSI over background for Appendix III constituents.	90 days (January 15, 2018)	§ 257.93(h)(2)
SSI in detection monitoring	Establish assessment monitoring program; sample and analyze groundwater for appendix IV constituents.	90 days (April 15, 2018)	§ 257.95(b)
Results obtained from samples taken under § 257.95(b)	Resample all wells and conduct analyses for all Appendix III constituents and those Appendix IV constituents detected in the step above.	90 days (July 14, 2018)	§ 257.95(d)(1)
Results obtained from samples taken under § 257.95(d)(1)	Complete statistical evaluation to determine if there is an exceedance of groundwater protection standards for appendix IV constituents detected.	90 days (October 12, 2018)	Unspecified; assume 90 days
Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Initiate assessment of corrective measures or demonstrate that exceedance of GPS was error or caused by other source.	90 days (January 10, 2019)	§ 257.95(g)(3)
For unlined CCR impoundments, an Appendix IV constituent detected at statistically significant level above GPS in assessment monitoring	Cease receipt of CCR and initiate closure of impoundment (unless unit qualifies for the rule's alternative closure provision under § 257.103).	6 months (April 12, 2019)	§ 257.95(g)(5); § 257.101(a)(1)

*Specific dates provided assume that there is an SSI over background in the first round of detection monitoring and an exceedance of a groundwater protection standard in the first round of assessment monitoring.

Message

From: Johnson, Barnes [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C39E9338CBF04DC3B4B29F78E5213303-JOHNSON, BARNES]
Sent: 1/26/2018 9:53:45 PM
To: Roewer, James [JRoewer@eei.org]; Fawal, Margaret K. [MKFawal@Venable.com]; Doug Green [dhgreen@venable.com]
CC: Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) [HAROLD.REGISTERJR@cmsenergy.com]; Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Devlin, Betsy [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b76a4bf5afc84459a6bf2a6a4645f40f-BDEVLIN]; Elliott, Ross [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=33cb08013cc94c21a3e3236dbad4c4a4-REELLIOT]; Behan, Frank [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b37b3a6d67644ad3bf5717d99610941e-FBEHAN]; Michaud, John [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=1b492b9143fb48f2b4e1ad2b35d49def-Michaud, John]; Lewis, Jen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ecd7b39ba6f14334bc308b9a3bc2ae5f-JLUE]; Celeste, Laurel [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=8f5194a050ce4b758e02e6835fe0b43d-Celeste, Laurel]; ORCR IO [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=feb18e156b3547d1881d93c5893396f8-ORCR IO]
Subject: RE: Confirmation of CCR Rule Groundwater Monitoring
Attachments: USWAG CCR LETTER_1_26_2018.pdf

Dear Jim, Doug and Margaret,

Enclosed, please find an interim reply to your letter. As always please feel free to reach out if you wish to discuss this further.

Sincerely,

Barnes Johnson
USEPA | Resource Conservation and Recovery | Tel 703-308-8895 | johnson.barnes@epa.gov | @EPAland

From: Roewer, James [mailto:JRoewer@eei.org]
Sent: Monday, November 27, 2017 8:06 AM
To: Fatouhi.david@epa.gov; Brown, Byron <brown.byron@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>
Cc: Doug Green <dhgreen@venable.com>; Fawal, Margaret K. <MKFawal@Venable.com>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>
Subject: Confirmation of CCR Rule Groundwater Monitoring

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

USWAG UTILITY SOLID WASTE ACTIVITIES GROUP

c/o Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, DC 20004-2696
202-508-5645
www.uswag.org

EPA CCR Update

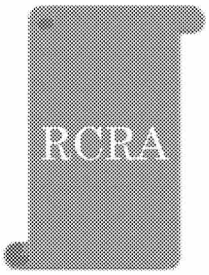
ACAA 2018 Winter Meeting
January 31, 2018

Barnes Johnson
Director
U.S. EPA Office of Resource Conservation & Recovery

Presentation Overview

- ORCR Overview
- Coal Combustion Residuals (CCR) Rule
- Sustainable Materials Management (SMM) Program
- EPA Tools and Efforts to Support the Beneficial Use of Industrial Secondary Materials
- Questions and Answers

ORCR Overview



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- Conserve energy and natural resources.
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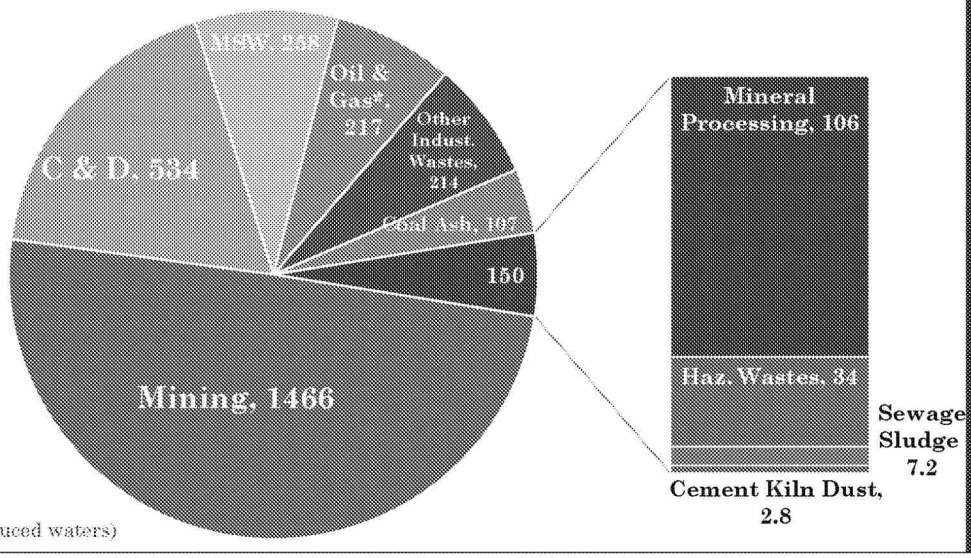
U.S. Waste Generation (million short tons)
Total: 2.95 Billion Tons



*(without produced waters)

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- Every year in the United States, we generate approximately 9 tons of waste per person.
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Recent Accomplishments and Efforts Underway

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- Bioreactor Landfills
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ENERGY STAR

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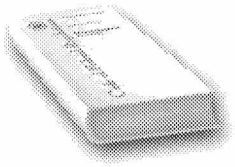
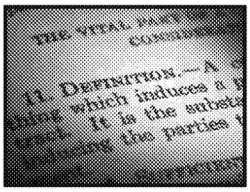
CCR Rule: Overview

- Final Rule published in the Federal Register on April 17, 2015; went into effect in October 2015.
- Established nationally applicable minimum criteria under RCRA's nonhazardous waste program for the disposal of CCR in landfills and surface impoundments.
- Reaffirms that CCR being beneficially used (BU) is not regulated.
  - Provides a definition of BU to clarify the distinction between BU and disposal.





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CCR Rule: Implementation

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  - Regions participate in biweekly calls
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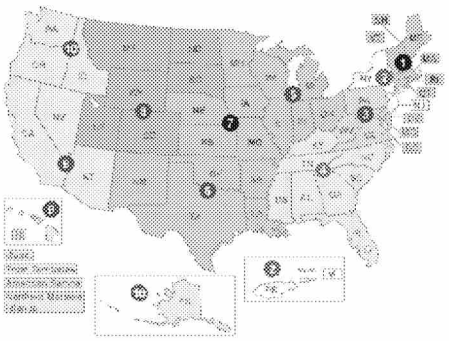
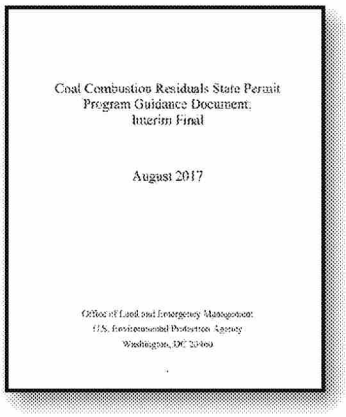


CCR Disposal Rule: WIIN Act & State Permit Programs

- Amended RCRA to allow States to submit CCR permit programs to EPA for approval.
- The state permit program must be at least "as protective as" the federal rule.
- EPA must implement a permit program in Indian Country.
- In "non-participating States" EPA implements a permit program if we receive appropriations to do so.
- ~ 20 states are interested in developing state permit programs.
- State program approval is judicially reviewable.

WATER INFRASTRUCTURE IMPROVEMENTS FOR THE NATION (WIIN) ACT

CCR Rule: State Permit Program Guidance


Coal Combustion Residuals State Permit Program Guidance Document: Interim Final

August 2017

Office of Land and Emergency Management
U.S. Environmental Protection Agency
Washington, DC 20460

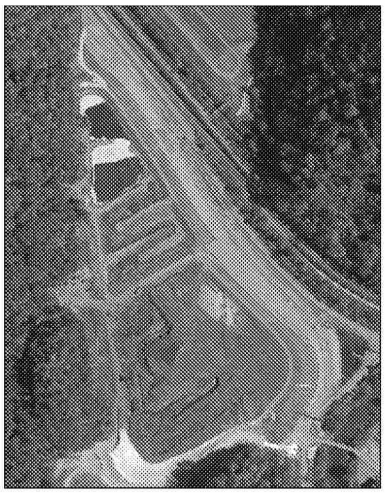
- Interim final guidance document published in August 2017
- Modeled after 40 CFR Part 239, permit program requirements for MSW landfills
- Expected to be a "living document"
- 4 Chapters:
  - Q's & A's about the WIIN Act & state permit approval process
  - Checklists to aid states in program development

CCR Rule: Litigation

- Three issues under litigation were remanded back to EPA:
  1. Adding boron to the list of constituents triggering assessment monitoring
  2. Reworking the vegetative height requirement
  3. Clarifying non-groundwater releases may not require full corrective action procedures.
- Lack of capacity for non-CCR waste streams
- Issues awaiting court decisions:
  - Authority over "inactive" units
  - 12,400-ton threshold
  - CCR Piles
- Oral Argument was held on November 20th, 2017
  - The court has not yet ruled

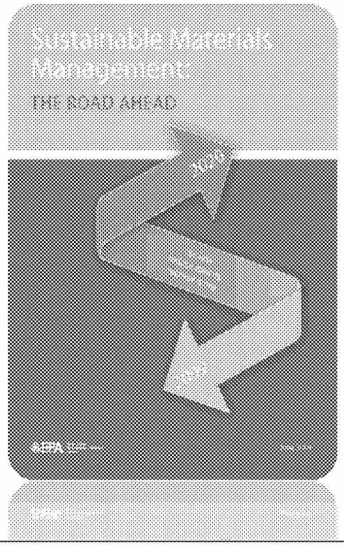
CCR Rule: Remand Rule

- **11/15 Status Report:**
  - **Phase 1:** Proposal by March 2018 and a final by or before June 2019
  - **Phase 2:** Proposal by September 2018 and final by or before December 2019
- **Issues:**
  - **Phase 1:** Boron, vegetative height, small releases are being addressed.
  - **Phase 2:** Will include issues for which EPA determines that a regulatory change may be appropriate.



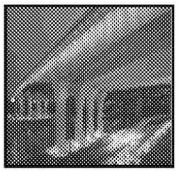
Sustainable Materials Management Program

U.S. EPA Transition to SMM



- "Sustainable Materials Management: The Road Ahead" used life cycle assessment to evaluate material use across the US economy.
- A systems-based approach is needed to effectively and efficiently:
  - Use materials
  - Minimize negative environmental impacts
  - Minimize unintended consequences of actions

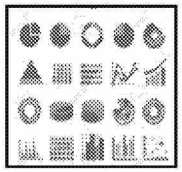
EPA's SMM Strategic Plan 2017-2022



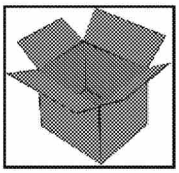
The Built Environment

Sustainable Electronics Management

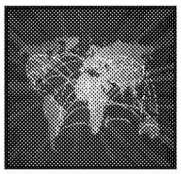
Sustainable Management of Food



Measurement



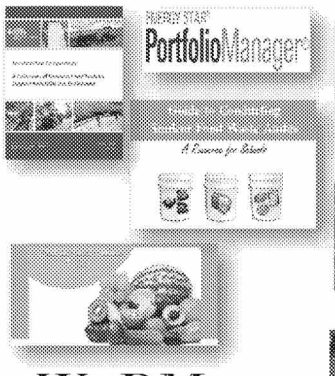
Sustainable Packaging



International Efforts

SMM Tools and Strategies

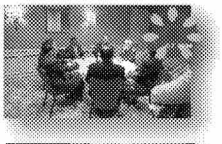
Tools

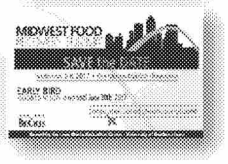


WaRM

Challenges

Convene





Partnerships

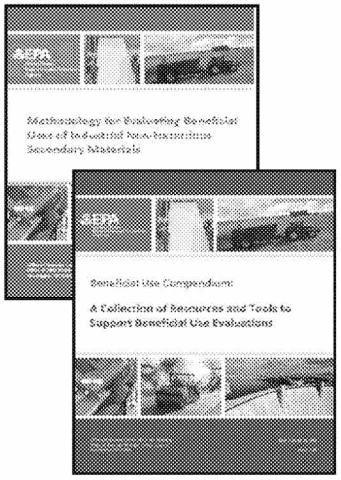
The Built Environment

- EPA's unique role is to help address barriers to beneficial use, provide data and technical assistance to states and other stakeholders. Historic efforts include:
  - Comprehensive Procurement Guidelines recommendations for cement and concrete products (1995)
  - Coal Combustion Products Partnership (2001-2008)
  - CCR BU Evaluation: Fly Ash Concrete & FGD Gypsum Wallboard (2014)
  - Risk Assessment of Spent Foundry Sands In Soil-Related Applications (2014)
  - Construction & Demolition materials and industrial waste measurement
- Built Environment Stakeholder Forum

EPA Tools and Efforts to Support Beneficial Use of Secondary Materials

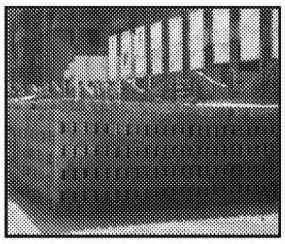
Tools to Evaluate Potential Impacts from Using Secondary Materials

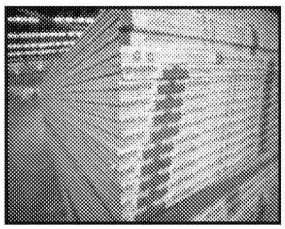
- EPA developed two key documents:
  - *Methodology for Evaluating the Beneficial Use of Industrial Non-Hazardous Secondary Materials* (BU Methodology); and
  - *Beneficial Use Compendium: A Collection of Resources and Tools to Support Beneficial Use Evaluations* (BU Compendium).
- These two documents together are intended to:
  - Help improve consistency and quality of beneficial use evaluations.
  - Identify key questions to ask when designing or reviewing evaluations.
  - Provide a list of tools and other resources.



BU Evaluation: Fly Ash Concrete and FGD Gypsum Wallboard

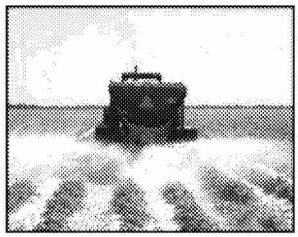
- Evaluates the two largest encapsulated BUs of CCR:
  - Fly ash used in concrete, and
  - FGD gypsum used in wallboard.
- Concluded that environmental releases are comparable to or lower than those from analogous non-CCR products, or are at or below relevant regulatory and health-based benchmarks.

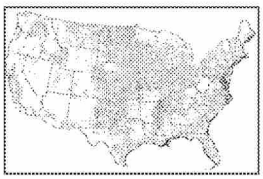




BU Evaluation: FGD Gypsum on Agricultural Fields

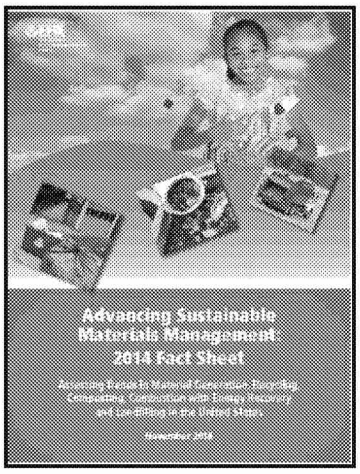
- Currently working with USDA to apply the BU Methodology to FGD gypsum used as an agricultural amendment.
- One of the most complex modeling efforts conducted by ORCR to-date.
- Currently scheduled for completion in 2018.





Materials Measurement

- Advancing SMM: Facts and Figures Report.
  - Expanded to include C&D generation estimates; will include management pathways.
  - Improving measurement of food loss and waste.
- New efforts underway to create new estimates for industrial secondary materials.



Industrial Secondary Materials Measurement

- 6 different categories of industrial materials:
  - CCRs Iron and Steel Slag, Spent Foundry Sands, Mining, Mineral Processing, Cement Kiln Dust, and Biosolids
- Utilizing publically available data:
  - Government sources
  - Industry Trade Associations
  - Academic Papers
- Current status:
  - Investigating sources of data
  - Discussions on best way to characterize materials
  - Currently anticipating estimations by the end of the 2018

Looking towards the future…

Thank you!

Barnes Johnson, Director

U.S. EPA Office of Resource Conservation & Recovery

Johnson.Barnes@epa.gov

@EPAland

Message

From: Thomas Adams [thadams@acaa-usa.org]
Sent: 1/10/2018 11:12:53 AM
To: Huggins, Richard [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0314e81a1f4843fcbbe0910cfddd53f4-Huggins, Richard]; wardo@wardo.com
Subject: RE: Oklahoma CCR Permit Program Webpage

Thank you, Richard. This is very helpful.

Best regards,

Thomas H. Adams, FACI, Executive Director
American Coal Ash Association
38800 Country Club Drive
Farmington Hills, MI 48331
thadams@acaa-usa.org
telephone: (720)870-7897
mobile: Personal Email / Ex. 6

Mark your calendar for the ACAA Winter Membership Meeting, Sarasota, FL, January 30 & 31, 2018!

From: Huggins, Richard [mailto:Huggins.Richard@epa.gov]
Sent: Tuesday, January 9, 2018 4:38 PM
To: wardo@wardo.com; Thomas Adams <thadams@acaa-usa.org>
Subject: Oklahoma CCR Permit Program Webpage

Here is the link to the webpage which has some background and multiple documents.
https://www.epa.gov/coalash/us-state-oklahoma-coal-combustion-residuals-permit-program

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: 571-345-6855

Message

From: Huggins, Richard [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0314E81A1F4843FCBBE0910CFDDD53F4-HUGGINS, RICHARD]
Sent: 1/30/2018 9:50:04 PM
To: Alyssa.Barto@acaa-usa.org; Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]
CC: Meghan Radtke (Radtke.Meghan@epa.gov) [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a364f0faad54a79be238288fa3496cf-Radtke, Meghan]; Barnes Johnson (Johnson.Barnes@epa.gov) [Johnson.Barnes@epa.gov]; Thomas Adams [thadams@acaa-usa.org]
Subject: Presentation for Barnes Johnson
Attachments: FINAL_2018 ACAA Winter Meeting 1.29.18.pptx

Alyssa,
Attached please find Barnes' presentation for tomorrow. If you have any questions please let us know.

Thank you

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
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Desk: 703-308-0017 iPhone: 571-345-6855

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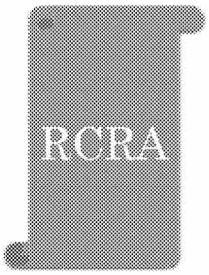

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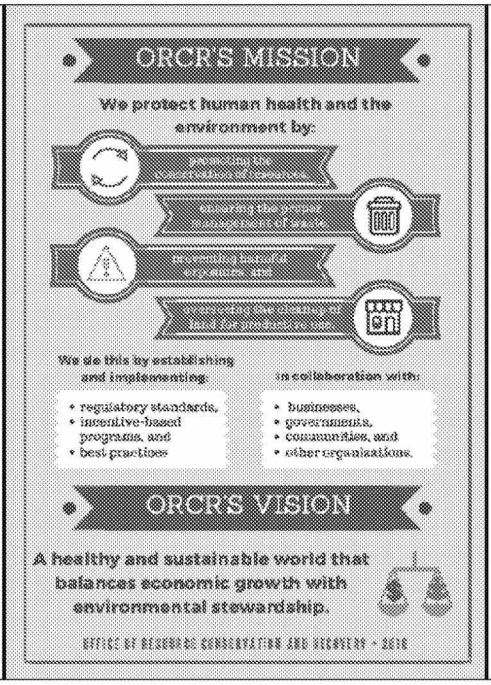

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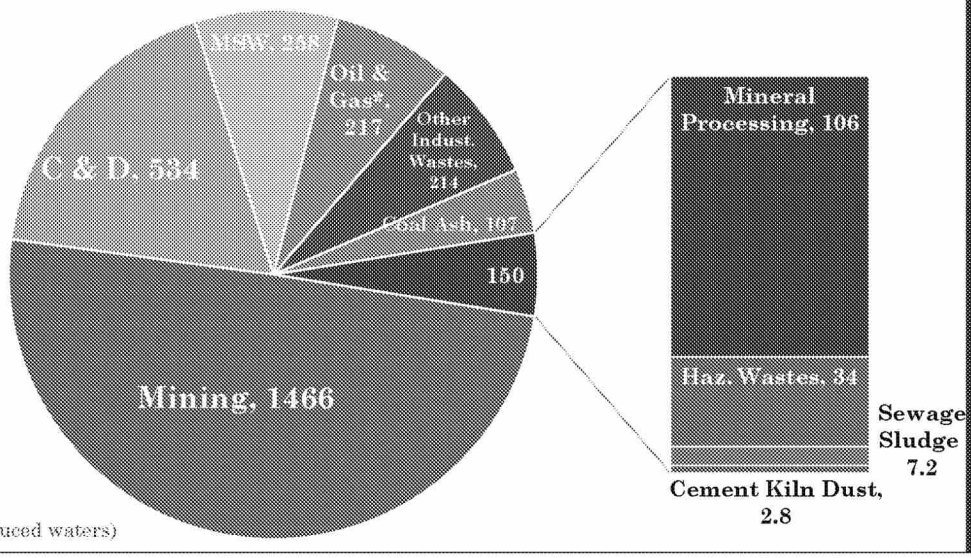

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ENERGY STAR

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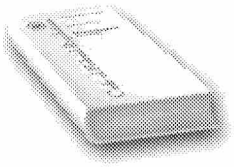

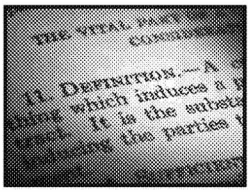

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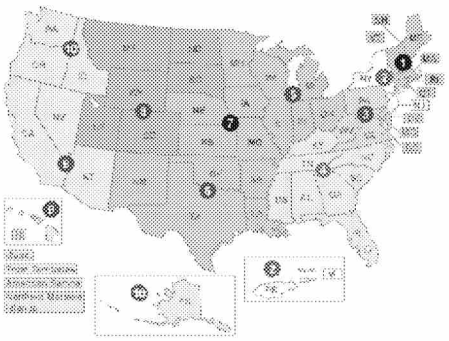
  - Successful Regional Trainings
  - Region 4 Training in February

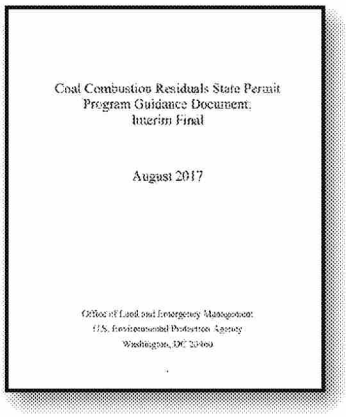


CCR Disposal Rule: WIIN Act & State Permit Programs

- Amended RCRA to allow States to submit CCR permit programs to EPA for approval.
- The state permit program must be at least "as protective as" the federal rule.
- EPA must implement a permit program in Indian Country.
- In "non-participating States" EPA implements a permit program if we receive appropriations to do so.
- ~ 20 states are interested in developing state permit programs.
- State program approval is judicially reviewable.

WATER INFRASTRUCTURE IMPROVEMENTS FOR THE NATION (WIIN) ACT

CCR Rule: State Permit Program Guidance


Coal Combustion Residuals State Permit Program Guidance Document: Interim Final

August 2017

Office of Land and Emergency Management
U.S. Environmental Protection Agency
Washington, DC 20460

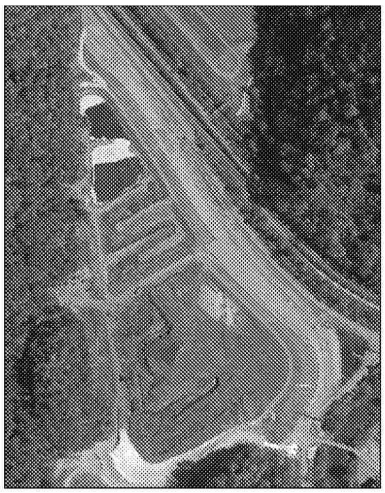
- Interim final guidance document published in August 2017
- Modeled after 40 CFR Part 239, permit program requirements for MSW landfills
- Expected to be a "living document"
- 4 Chapters:
  - Q's & A's about the WIIN Act & state permit approval process
  - Checklists to aid states in program development

CCR Rule: Litigation

- Three issues under litigation were remanded back to EPA:
  1. Adding boron to the list of constituents triggering assessment monitoring
  2. Reworking the vegetative height requirement
  3. Clarifying non-groundwater releases may not require full corrective action procedures.
- Lack of capacity for non-CCR waste streams
- Issues awaiting court decisions:
  - Authority over "inactive" units
  - 12,400-ton threshold
  - CCR Piles
- Oral Argument was held on November 20th, 2017
  - The court has not yet ruled

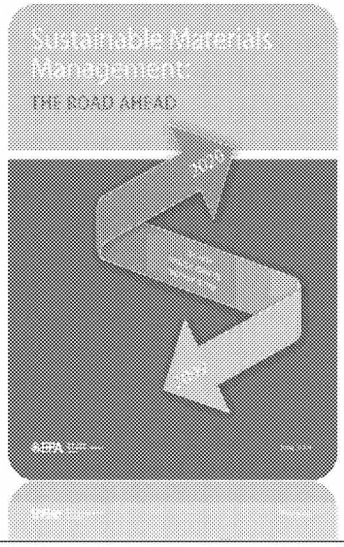
CCR Rule: Remand Rule

- **11/15 Status Report:**
  - **Phase 1:** Proposal by March 2018 and a final by June 2019
  - **Phase 2:** Proposal by September 2018 and final by December 2019
- **Issues:**
  - **Phase 1:** Boron, vegetative height, small releases are being addressed.
  - **Phase 2:** Will include issues for which EPA determines that a regulatory change may be appropriate.



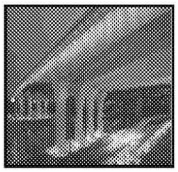
Sustainable Materials Management Program

U.S. EPA Transition to SMM



- "Sustainable Materials Management: The Road Ahead" used life cycle assessment to evaluate material use across the US economy.
- A systems-based approach is needed to effectively and efficiently:
  - Use materials
  - Minimize negative environmental impacts
  - Minimize unintended consequences of actions

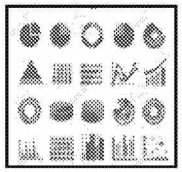
EPA's SMM Strategic Plan 2017-2022



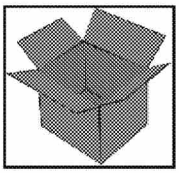
The Built Environment

Sustainable Electronics Management

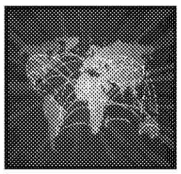
Sustainable Management of Food



Measurement



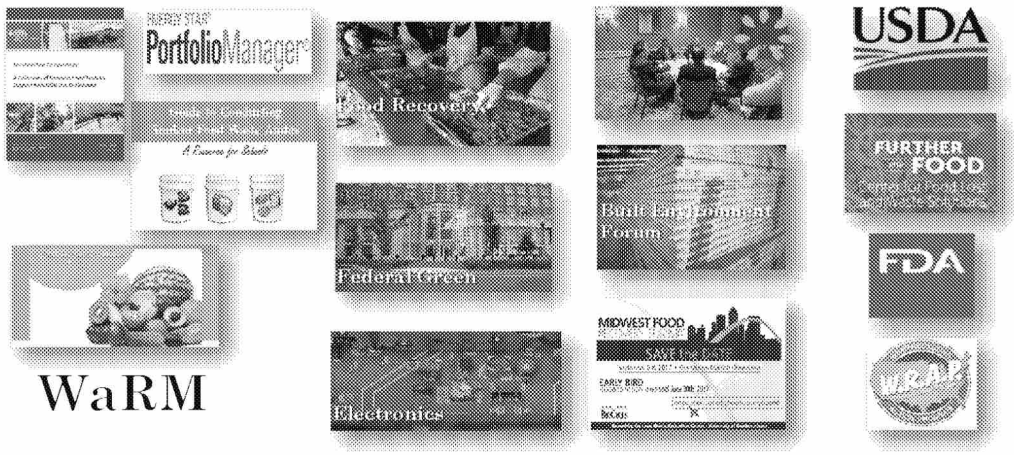
Sustainable Packaging



International Efforts

SMM Tools and Strategies

Tools | Challenges | Convene | Partnerships



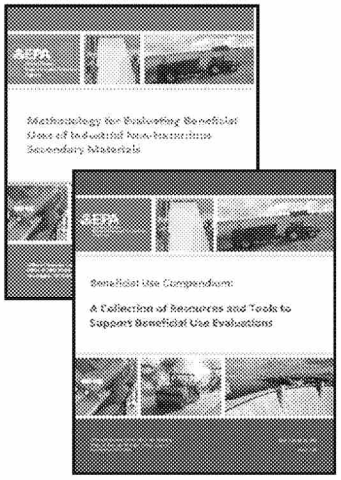
The Built Environment

- EPA's unique role is to help address barriers to beneficial use, provide data and technical assistance to states and other stakeholders. Historic efforts include:
  - Comprehensive Procurement Guidelines recommendations for cement and concrete products (1995)
  - Coal Combustion Products Partnership (2001-2008)
  - CCR BU Evaluation: Fly Ash Concrete & FGD Gypsum Wallboard (2014)
  - Risk Assessment of Spent Foundry Sands In Soil-Related Applications (2014)
  - Construction & Demolition materials and industrial waste measurement
- Built Environment Stakeholder Forum

EPA Tools and Efforts to Support Beneficial Use of Secondary Materials

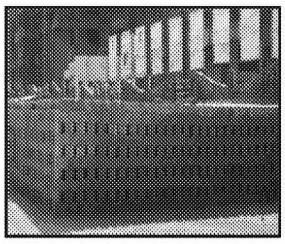
Tools to Evaluate Potential Impacts from Using Secondary Materials

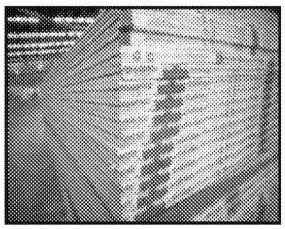
- EPA developed two key documents:
  - *Methodology for Evaluating the Beneficial Use of Industrial Non-Hazardous Secondary Materials* (BU Methodology); and
  - *Beneficial Use Compendium: A Collection of Resources and Tools to Support Beneficial Use Evaluations* (BU Compendium).
- These two documents together are intended to:
  - Help improve consistency and quality of beneficial use evaluations.
  - Identify key questions to ask when designing or reviewing evaluations.
  - Provide a list of tools and other resources.



BU Evaluation: Fly Ash Concrete and FGD Gypsum Wallboard

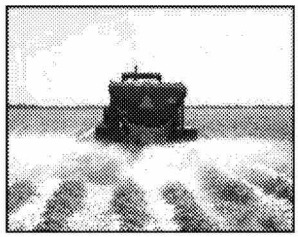
- Evaluates the two largest encapsulated BUs of CCR:
  - Fly ash used in concrete, and
  - FGD gypsum used in wallboard.
- Concluded that environmental releases are comparable to or lower than those from analogous non-CCR products, or are at or below relevant regulatory and health-based benchmarks.

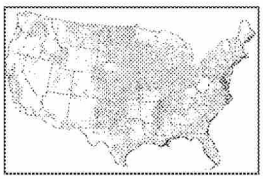




BU Evaluation: FGD Gypsum on Agricultural Fields

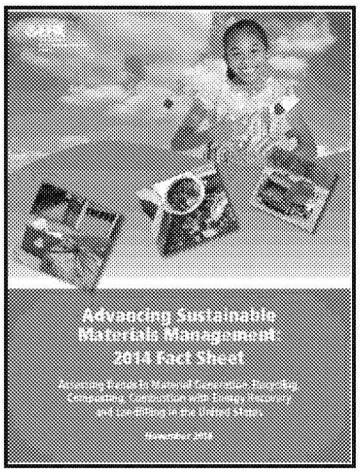
- Currently working with USDA to apply the BU Methodology to FGD gypsum used as an agricultural amendment.
- One of the most complex modeling efforts conducted by ORCR to-date.
- Currently scheduled for completion in 2018.





Materials Measurement

- Advancing SMM: Facts and Figures Report.
  - Expanded to include C&D generation estimates; will include management pathways.
  - Improving measurement of food loss and waste.
- New efforts underway to create new estimates for industrial secondary materials.



Industrial Secondary Materials Measurement

- 6 different categories of industrial materials:
  - CCRs Iron and Steel Slag, Spent Foundry Sands, Mining, Mineral Processing, Cement Kiln Dust, and Biosolids
- Utilizing publically available data:
  - Government sources
  - Industry Trade Associations
  - Academic Papers
- Current status:
  - Investigating sources of data
  - Discussions on best way to characterize materials
  - Currently anticipating estimations by the end of the 2018

Looking towards the future…

Thank you!

Barnes Johnson, Director

U.S. EPA Office of Resource Conservation & Recovery

Johnson.Barnes@epa.gov

@EPAland

Message

From: Huggins, Richard [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0314E81A1F4843FCBBE0910CFDDD53F4-HUGGINS, RICHARD]
Sent: 1/9/2018 9:38:11 PM
To: wardo@wardo.com; Thomas Adams [thadams@acaa-usa.org]
Subject: Oklahoma CCR Permit Program Webpage

Here is the link to the webpage which has some background and multiple documents.
https://www.epa.gov/coalash/us-state-oklahoma-coal-combustion-residuals-permit-program

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: Personal Email / Ex. 6

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND
EMERGENCY RESPONSE
NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

APR 30 2018

James Roewer
c/o Edison Electric Institute
701 Pennsylvania Avenue, N.W.
Washington, D.C. 20004

Douglas Green
Margaret Fawal
Venable LLP
600 Massachusetts Avenue, N.W.
Washington, D.C. 20001

Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements

Dear Ms. Fawal, Mr. Green, and Mr. Roewer:

My office has been asked to respond to the letter from the Utility Solid Waste Activities Group (USWAG), dated November 27, 2017, to the U.S. Environmental Protection Agency (EPA), requesting confirmation with regard to your reading of the timing for two specific requirements in the Coal Combustion Residuals (CCR) Rule's groundwater monitoring provisions: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under 40 C.F.R. § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. On January 26, 2018, we provided an initial response that addressed the first issue raised in your letter. This letter responds to the remainder of that November 27 letter.

USWAG requested confirmation of its reading of the time frame for completing a statistical evaluation of the groundwater data collected during assessment monitoring in order to determine whether there is an exceedance of the groundwater protection standard. Your letter suggests that January 10, 2019, is the date by which facilities must make their initial determination of whether there has been the detection of a statistically significant increase of an Appendix IV constituent above the relevant groundwater protection standard in the downgradient wells (assuming the facility has elected to take 90 days pursuant to § 257.94(e)(2) to demonstrate that detection of the Appendix III constituent(s) was attributable to sampling error or some other source).

As explained below, EPA calculates January 14, 2019,[1] as the deadline for facilities[2] to make their initial determination of whether there has been the detection of a statistically significant increase of an Appendix IV constituent above the relevant groundwater protection standard in the downgradient wells (assuming the facility has elected to take advantage of the 90 day option in § 257.94(e)(2)).

Section 257.95 generally establishes the schedule and framework for conducting the sampling and analysis required for assessment monitoring, but does not include a specific timeframe for completing the statistical evaluation of these data to determine whether there is an exceedance of the groundwater protection standard. The timeframe for that requirement instead appears in 40 C.F.R. § 257.93(h), which EPA reads to apply to the statistical analyses required under both detection and assessment monitoring. Taken together, these sections establish that the first deadline for completing the statistical evaluation of the assessment monitoring data to determine whether there is an exceedance of the groundwater protection standard is 90 days after completion of the re-sampling and analysis in § 257.95(d)(l).

Section 257.95(b) provides that within 90 days of triggering assessment monitoring (and on an annual basis thereafter) the owner/operator must sample and analyze for all Appendix IV constituents. For any Appendix IV constituents detected in the sampling and analysis required under subsection (b) the owner/operator must: (1) identify ("establish") the relevant groundwater protection standards specified in § 257.95(h); (2) continue assessment monitoring by resampling for all Appendix III and the relevant (detected) Appendix IV constituents and (3) obtain analytical results of those combined samples within 90 days. 40 C.F.R. § 257.95(d)(1)-(2).

Section 257.93(h) states that an owner or operator "must determine whether there is a statistically significant increase over background values for each constituent required in the particular groundwater monitoring program that applies to the CCR unit, as determined under § 257.94(a) or § 257.95(a)." 40 C.F.R. § 257.93(h). Section (h)(2) in turn specifies that "within 90 days after completing sampling and analysis, the owner or operator must determine whether there has been a statistically significant increase over background for any constituent at each monitoring well." The determination of whether there has been a statistically significant increase over background is a necessary prerequisite to determining whether there is an exceedance of the groundwater protection standard. A determination that there has been a statistically significant increase over background indicates that there is a release from the unit and requires that the release be evaluated further to determine if it also exceeds the ground water protection standard. See 40 C.F.R. § 257.95(f).

Thus, 90 days after completing the resampling for the relevant (detected) Appendix IV constituents pursuant to § 257.95(d)(1), an owner or operator must conduct a statistical analysis in accordance with § 257.93(h).[3] For example, assuming that the facility did not take advantage of the 90 day option in § 257.94(e)(2), the first round of Assessment monitoring would have been completed on April 16, 2018. In this case, consistent with § 257.93(h), the facility would need to complete the

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[1] In calculating this date, EPA extended any deadlines that fell on a weekend or Federal holiday to the next business day.

[2] This excludes those inactive surface impoundments whose deadlines were extended by 81 Fed. Reg. 51,803 (Aug. 5, 2016).

[3] Note that conducting the statistical analysis on 2 sets of sampling occurs only on this first round (the "initial…sampling events" referenced in § 257.95(d)(1)) of Assessment monitoring. All other statistical analyses on subsequent rounds of on-going semi-annual or annual sampling under assessment monitoring must be conducted following the single set of samples obtained during that sampling event.

statistical analyses on the two rounds of sampling to determine whether there is a statistically significant increase over the groundwater protection standard no later than October 15, 2018.

EPA's discussion of section 257.93(h)(2) in the final rule preamble supports this reading. As EPA explained, "[s]everal commenters suggested that *once sampling and analysis had been completed,* 90 days would be a reasonable amount of time to complete the statistical analysis to determine whether an exceedance had occurred. No commenter suggested a longer period of time was necessary and that timeframe is consistent with the Agency's experience of the timeframes necessary to complete such analyses. Accordingly, *we have revised the provision to require the determination of a statistically significant increase to be made within 90 days of sampling and analysis.*" 80 Fed. Reg. at 21,404 (emphases added).

If you have any additional questions regarding this letter, please contact me at (703) 308-8895 or at johnson.barnes@epa.gov.

Sincerely,

Barnes Johnson

Barnes Johnson, Director
Office of Resource Conservation and Recovery

Message

From: Roewer, James [JRoewer@eei.org]
Sent: 11/27/2017 1:19:22 PM
To: Fotouhi, David [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=febaf0d56aab43f8a9174b18218c1182-Fotouhi, Da]; Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]; Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]
CC: Doug Green [dhgreen@venable.com]; Fawal, Margaret K. [MKFawal@Venable.com]; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) [HAROLD.REGISTERJR@cmsenergy.com]
Subject: FW: Confirmation of CCR Rule Groundwater Monitoring
Attachments: CCRRuleGWMonitoring11272017.pdf

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

USWAG UTILITY SOLID WASTE ACTIVITIES GROUP
c/o Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, DC 20004-2696
202-508-5645
www.uswag.org

Message

From: Huggins, Richard [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0314E81A1F4843FCBBE0910CFDDD53F4-HUGGINS, RICHARD]
Sent: 5/8/2018 3:57:42 PM
To: Weiller, Maureen [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=5a6f686262dd49d198844ad556d3edf6-Weiller, Ma]
Subject: FW: Confirmation of CCR Rule Groundwater Monitoring
Attachments: USWAG CCR LETTER_1_26_2018.pdf

Outgoing uswag 1

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: 571-345-6855

From: Johnson, Barnes
Sent: Friday, January 26, 2018 4:54 PM
To: Roewer, James <JRoewer@eei.org>; Fawal, Margaret K. <MKFawal@Venable.com>; Doug Green <dhgreen@venable.com>
Cc: Brown, Byron <brown.byron@epa.gov>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>; Fotouhi, David <Fotouhi.David@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Behan, Frank <Behan.Frank@epa.gov>; Michaud, John <Michaud.John@epa.gov>; Lewis, Jen <Lewis.Jen@epa.gov>; Celeste, Laurel <celeste.laurel@epa.gov>; ORCR IO <ORCR_IO@epa.gov>
Subject: RE: Confirmation of CCR Rule Groundwater Monitoring

Dear Jim, Doug and Margaret,

Enclosed, please find an interim reply to your letter. As always please feel free to reach out if you wish to discuss this further.

Sincerely,

Barnes Johnson
USEPA | Resource Conservation and Recovery | Tel 703-308-8895 | johnson.barnes@epa.gov | @EPAland

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From: Roewer, James [mailto:JRoewer@eei.org]
Sent: Monday, November 27, 2017 8:06 AM
To: Fatouhi.david@epa.gov; Brown, Byron <brown.byron@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>
Cc: Doug Green <dhgreen@venable.com>; Fawal, Margaret K. <MKFawal@Venable.com>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>
Subject: Confirmation of CCR Rule Groundwater Monitoring

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

USWAG UTILITY SOLID WASTE ACTIVITIES GROUP

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Washington, DC 20004-2696
202-508-5645
www.uswag.org

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

OFFICE OF
SOLID WASTE AND EMERGENCY
RESPONSE

NOW THE
OFFICE OF LAND AND
EMERGENCY MANAGEMENT

JAN 2 6 2018

Mr. James Roewer
c/o Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, D.C. 20004

Mr. Douglas Green
Ms. Margaret Fawal
Venable LLP
600 Massachusetts Avenue, NW
Washington, D.C. 20001

Re: Coal Combustion Residuals Rule Groundwater Monitoring Requirements

Dear Ms. Fawal, Mr. Green, and Mr. Roewer:

My office has been asked to respond to the letter from the Utility Solid Waste Activities Group (USWAG), dated November 27, 2017, to the U.S. Environmental Protection Agency (EPA), requesting confirmation with regard to your interpretation of the timing for two specific requirements in the Coal Combustion Residuals (CCR) Rule's groundwater monitoring provisions: (1) the timing to establish an assessment monitoring program if an owner/operator is unable to successfully make an alternate source demonstration in detection monitoring under 40 C.F.R. § 257.94(e)(2); and (2) the timing for conducting a statistical evaluation on the data collected under the assessment monitoring program. This responds in part to that November 27 letter.

1. Alternate Source Demonstration in Detection Monitoring

EPA agrees with your interpretation that the 90-day time period for conducting an alternate source demonstration in 40 C.F.R. § 257.94(e)(2) is separate from, and does not run concurrently with, the 90-day time frame in § 257.94(e)(l) or § 257.95(b).

40 C.F.R § 257.94(e)(1) expressly provides that paragraph (e)(2) serves as an exception to the requirement that an owner or operator establish an assessment monitoring program within 90 days of detecting a statistically significant increase over background levels for any Appendix III constituent. ("Except as provided for in paragraph (e)(2) of this section, ..."). Paragraph (e)(2) in turn provides that instead of initiating an assessment monitoring program within 90 days of such detection, the owner or operator may attempt to "demonstrate that a source other than the CCR unit caused the statistically significant increase over background levels for a constituent or that the statistically significant increase

resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality." The regulation further provides that, "[i]f a successful demonstration is completed within the 90-day period, the owner or operator of the CCR unit may continue with a detection monitoring program under this section." If, at the end of that 90-day timeframe, the owner/operator is not able to successfully make this demonstration, the rule requires the owner/operator to "initiate an assessment monitoring program as required under § 257.95."

Consistent with these provisions, EPA interprets 40 C.F.R. § 257.95(b) such that an assessment monitoring program is "triggered" either: (1) on the date an SSI is detected in a round of sampling taken under § 257.94(b) if an owner/operator elects not to make an alternate source demonstration under § 257.94(e)(2); or (2) at the end of the 90-day period in § 257.94(e)(2) if an owner/operator tries but cannot successfully make an alternate source demonstration under § 257.94(e)(2).

Note that this interpretation of the regulations mirrors the discussion of these provisions in the preamble to the final rule. As EPA explained,

> The owner or operator has the opportunity to demonstrate that a source other than the CCR unit caused the statistically significant increase or that the statistically significant increase resulted from error in sampling, analysis, statistical evaluation or a natural variation in groundwater quality. Within 90 days, the owner or operator must prepare a report documenting this demonstration which must then be certified by a qualified professional engineer verifying the accuracy of the information in the report. If a successful demonstration is made within 90 days, the owner or operator may continue detection monitoring. If a successful demonstration is not made within 90 days, the owner or operator must initiate assessment monitoring.
>
> Commenters raised concern that 90 days would not be sufficient to complete all of the activities necessary to determine whether the detection of an SSI was from another source than the CCR unit or was based on inaccurate results. The Agency recognizes that in some circumstances it could take more than 90 days to resample and have laboratories conduct new analyses, or to conduct field investigations to determine that another source is causing the contamination. As a result, § 257.94(e)(3) does not place an ultimate time limit for owners and operators to complete the demonstration. However, if after 90 days the owner or operator has not made a successful demonstration, (s)he must begin an assessment monitoring program.

80 Fed. Reg. 21,302, 21,404 (Apr. 17, 2015). *See also id.* at 21406 (contrasting the 90-day time period for making an alternate source demonstration pursuant to § 257.95(g)(3)(ii)).

2. Statistical Evaluation of Assessment Monitoring Data

USWAG also requested that EPA confirm your interpretation of the time frame for completing a statistical evaluation of the groundwater data collected during assessment monitoring in order to determine whether there is an exceedance of the groundwater protection standard. In your view, the regulations do not specify a specific timeframe for completing the statistical evaluation of these data. In support of this interpretation, you note that under § 257.95(b), the owner/operator must sample and analyze the groundwater for all appendix IV constituents within 90 days of triggering an assessment monitoring program; and that under § 257.95(d)(1), within 90 days of obtaining the results under § 257.95(b), the owner/operator must resample and analyze the groundwater for all appendix III constituents and those appendix IV constituents detected in § 257.95(b). The regulations then require the owner/operator to initiate an assessment of corrective measures within 90 days of detecting an appendix IV constituent at a

statistically significant level above the groundwater protection standard (40 C.F.R. § 257.95(g)(3)). On this basis, USWAG interprets the regulation to provide, at a minimum, that owners/operators have 90 days to conduct the statistical evaluation following completion of the sampling and analysis in § 257.95(d)(l).

EPA is still considering the issues you have raised regarding these provisions of the CCR Rule, and is therefore not in a position to provide a response at this time. I understand the need to provide timely guidance to facilities and will communicate EPA's views as soon as is feasible.

In the interim, if you have questions regarding this letter, please contact me at (703) 308-8895 or Frank Behan at (703) 308-8476.

Sincerely,

Barnes Johnson, Director
Office of Resource Conservation and Recovery

Message

From: Huggins, Richard [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0314E81A1F4843FCBBE0910CFDDD53F4-HUGGINS, RICHARD]
Sent: 5/8/2018 3:55:33 PM
To: Hillyer, Kirsten [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=Hillyer, Kirsten]
Subject: FW: Confirmation of CCR Rule Groundwater Monitoring
Attachments: USWAG CCR LETTER_1_26_2018.pdf

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: 571-345-6855

From: Johnson, Barnes
Sent: Friday, January 26, 2018 4:54 PM
To: Roewer, James <JRoewer@eei.org>; Fawal, Margaret K. <MKFawal@Venable.com>; Doug Green <dhgreen@venable.com>
Cc: Brown, Byron <brown.byron@epa.gov>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>; Fotouhi, David <Fotouhi.David@epa.gov>; Devlin, Betsy <Devlin.Betsy@epa.gov>; Elliott, Ross <Elliott.Ross@epa.gov>; Behan, Frank <Behan.Frank@epa.gov>; Michaud, John <Michaud.John@epa.gov>; Lewis, Jen <Lewis.Jen@epa.gov>; Celeste, Laurel <celeste.laurel@epa.gov>; ORCR IO <ORCR_IO@epa.gov>
Subject: RE: Confirmation of CCR Rule Groundwater Monitoring

Dear Jim, Doug and Margaret,

Enclosed, please find an interim reply to your letter. As always please feel free to reach out if you wish to discuss this further.

Sincerely,

Barnes Johnson
USEPA | Resource Conservation and Recovery | Tel 703-308-8895 | johnson.barnes@epa.gov | @EPAland

From: Roewer, James [mailto:JRoewer@eei.org]
Sent: Monday, November 27, 2017 8:06 AM
To: Fatouhi.david@epa.gov; Brown, Byron <brown.byron@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>
Cc: Doug Green <dhgreen@venable.com>; Fawal, Margaret K. <MKFawal@Venable.com>; HAROLD D. REGISTER JR <HAROLD.REGISTERJR@cmsenergy.com> (HAROLD.REGISTERJR@cmsenergy.com) <HAROLD.REGISTERJR@cmsenergy.com>
Subject: Confirmation of CCR Rule Groundwater Monitoring

David,

Attached is a letter seeking confirmation regarding the timing of the groundwater monitoring program as established by EPA's CCR rule (40 CFR Part 257, Subpart D).

USWAG members are committed to complying with all environmental regulations, including the CCR rule. Therefore, clarification of the rule's requirements—including confirmation of USWAG's reading of the requirements specific to groundwater monitoring—is critical.

We appreciate your attention to this matter.

Thank you,

Jim Roewer

Jim Roewer
Executive Director
USWAG

USWAG UTILITY SOLID WASTE ACTIVITIES GROUP

c/o Edison Electric Institute
701 Pennsylvania Avenue, NW
Washington, DC 20004-2696
202-508-5645
www.uswag.org

Message

From: Roewer, James [JRoewer@eei.org]
Sent: 2/21/2018 6:58:12 PM
To: Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]; Walsh, Ed [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=51f3bac3af644626b6a70f087751baca-EWalsh]; Brown, Byron [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=9242d85c7df343d287659f840d730e65-Brown, Byro]
CC: Odom, Cal [COdom@eei.org]; Franks, Jessica [JFranks@eei.org]
Subject: FY 2019 Appropriation for CCR Federal Permit Programs in Non-Participating States

We are writing in follow-up to the February 15th message from American Electric Power, FirstEnergy and Southern Company regarding appropriations to support the implementation of the federal Coal Combustion Residuals (CCR) Rule through federal permit programs.

We echo the concerns of our member companies, and we urge EPA to revise its funding requests to identify the resources necessary for it to implement a CCR permit program in "non-participating states" per the language in the Water Infrastructure Improvements for the Nation Act (WIIN Act), enacted in December 2016. It is critically important that EPA convey to the Senate and House Appropriations Committees how much you believe is necessary for this purpose.

One of the biggest flaws in the CCR Rule is its self-implementing nature which we believe will lead to an unpredictable patchwork of interpretation by federal District Courts' rulings in citizen suit enforcement cases. Fulfilling the promise of the WIIN Act, designed to ultimately eliminate the self-implementing nature of the rule and replace it with either a state or federal CCR permit program, is contingent on both the approval of state permit programs and on the funding of a federal CCR permit program.

We will therefore continue to advocate for specific funding in both FY 2018 and 2019 appropriations bills and we urge you to identify to Congress the budget necessary for EPA to implement federal CCR permit programs in non-participating states.

Jessica Franks
jfranks@eei.org
Edison Electric Institute

EEI | Edison Electric INSTITUTE

Cal Odom
codom@eei.org
Edison Electric Institute

EEI | Edison Electric INSTITUTE

Jim Roewer
Jim.roewer@uswag.org
USWAG

Message

From: Alyssa J. Barto [Alyssa.Barto@acaa-usa.org]
Sent: 1/31/2018 11:59:51 AM
To: Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]
Subject: RE: Presentation for Barnes Johnson

Thank you Barnes, I look forward to meeting you today!

Alyssa Barto
Member Liaison
American Coal Ash Association
38800 Country Club Drive
Farmington Hills, MI 48331
248-848-3816
alyssa.barto@acaa-usa.org

From: Johnson, Barnes [mailto:Johnson.Barnes@epa.gov]
Sent: Tuesday, January 30, 2018 5:23 PM
To: Huggins, Richard <Huggins.Richard@epa.gov>; Alyssa J. Barto <Alyssa.Barto@acaa-usa.org>
Cc: Radtke, Meghan <Radtke.Meghan@epa.gov>; Thomas Adams <thadams@acaa-usa.org>
Subject: RE: Presentation for Barnes Johnson

Hello all, sorry for the confusion. Please use this version.

Barnes Johnson
USEPA | Resource Conservation and Recovery | Tel 703-308-8895 | johnson.barnes@epa.gov | @EPAland

From: Huggins, Richard
Sent: Tuesday, January 30, 2018 4:56 PM
To: Alyssa.Barto@acaa-usa.org
Cc: Radtke, Meghan <Radtke.Meghan@epa.gov>; Johnson, Barnes <Johnson.Barnes@epa.gov>; Thomas Adams <thadams@acaa-usa.org>
Subject: RE: Presentation for Barnes Johnson

Alyssa, apologies the attachment I sent at 4:50 is the incorrect version. I will send you the correct version shortly. Thanks

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: 571-345-6855

From: Huggins, Richard
Sent: Tuesday, January 30, 2018 4:50 PM
To: 'Alyssa.Barto@acaa-usa.org' <Alyssa.Barto@acaa-usa.org>

Cc: Meghan Radtke (Radtke.Meghan@epa.gov) <Radtke.Meghan@epa.gov>; Barnes Johnson (Johnson.Barnes@epa.gov) <Johnson.Barnes@epa.gov>; 'Thomas Adams' <thadams@acaa-usa.org>
Subject: Presentation for Barnes Johnson

Alyssa,
Attached please find Barnes' presentation for tomorrow. If you have any questions please let us know.

Thank you

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
Desk: 703-308-0017 iPhone: 571-345-6855

Message

From: Huggins, Richard [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=0314E81A1F4843FCBBE0910CFDDD53F4-HUGGINS, RICHARD]
Sent: 1/30/2018 9:50:04 PM
To: Alyssa.Barto@acaa-usa.org
CC: Radtke, Meghan [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7a364f0faad54a79be238288fa3496cf-Radtke, Meghan]; Johnson, Barnes [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=c39e9338cbf04dc3b4b29f78e5213303-Johnson, Barnes]; Thomas Adams [thadams@acaa-usa.org]
Subject: Presentation for Barnes Johnson
Attachments: FINAL_2018 ACAA Winter Meeting 1.29.18.pptx

Alyssa,
Attached please find Barnes' presentation for tomorrow. If you have any questions please let us know.

Thank you

Richard Huggins Jr.
Senior Special Assistant
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency
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